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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/596,756

06/23/2006

Bennie Josephus De Maagt

NL040001

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07/28/2008

PHILIPS INTELLECTUAL PROPERTY & STANDARDS

P.O. BOX 3001

BRIARCLIFF MANOR, NY 10510

EXAMINER

BOWMAN, MARY ELLEN

ART UNIT

PAPER NUMBER

4174

MAIL DATE

DELIVERY MODE

07/28/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/596,756	Applicant(s) DE MAAGT ET AL.	
	Examiner MARY ELLEN BOWMAN	Art Unit 4174	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 11-14 is/are rejected.
- 7) ☒ Claim(s) 5-10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

2. Claims 5-10 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim exists where each of claims 5-10 is dependent on claims 3 and 4, which are themselves multiple dependent claims. Accordingly, the claims 5-10 have not been further treated on the merits.

Claim Rejections - 35 USC § 103

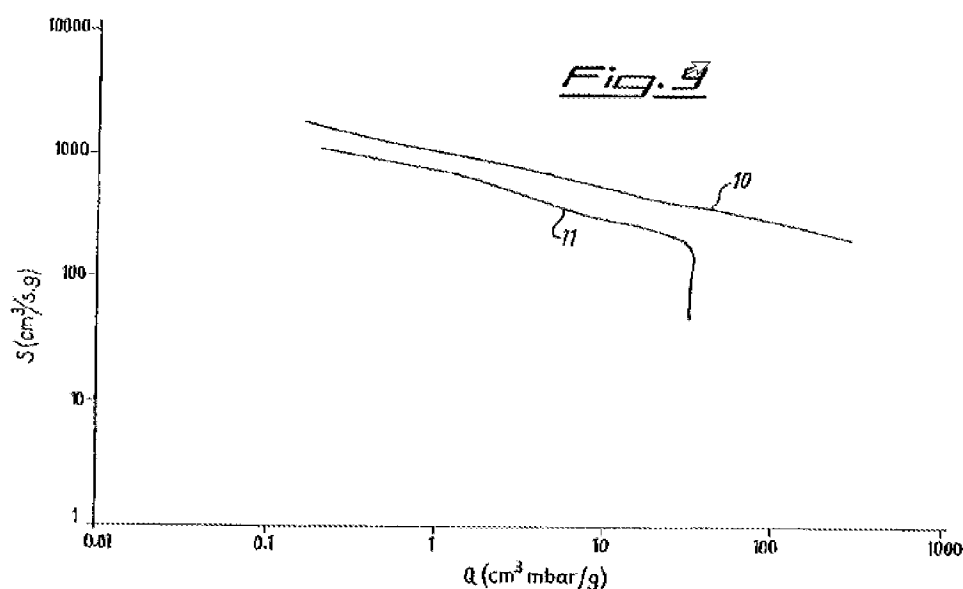
3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4 and 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Toia et al., USPN 6,521,014 B2, published 18 February 2003 (hereinafter referred to as "Toia") in view of Nagasawa et al., USPN 5,432,399, published 11 July 1995 (hereinafter referred to as "Nagasawa") and further in view of Deguchi, JP 2004-220880 A, published 05 August 2004 (hereinafter referred to as "Deguchi"). Note: The English translation of Deguchi is cited in this Office Action.
5. Regarding claim 1, Toia teaches a discharge lamp (e.g., col 1, line 21; "lamps") comprising: a getter (10) being provided in the outer envelope (e.g., col 1, lines 21-25; "an

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example is the use in lamps, particularly the fluorescent ones which are filled with noble gases at pressures of a few tens of millibars, wherein the NEG alloy [i.e., the getter] has the purpose of removing...gases”), the getter (10) comprising at least 2.5 mbar.ml nitrogen (e.g., Fig 9 below, curve 10; Curve 10 depicts $100 \text{ cm}^3 \cdot \text{mbar/g}$ absorbed nitrogen, which for 0.2g as used in Toia, would equate to $20 \text{ cm}^3 \cdot \text{mbar}$ or 20 mbar.ml, which is well above 2.5 mbar.ml).



6. Regarding claim 11, Toia teaches a method of manufacturing a discharge lamp (e.g., col 1, line 21; “lamps”), a getter (10) being provided in the outer envelope (1) (e.g., col 1, lines 21-25; “an example is the use in lamps, particularly the fluorescent ones which are filled with noble gases at pressures of a few tens of millibars, wherein the NEG alloy [i.e., the getter] has the purpose of removing...gases”), the method including: activating the getter (10) for reducing the amount of nitrogen in the outer envelope (1) (e.g., col 4, lines 25 and 31-33; “the NEG alloys of the invention [i.e., the getter] can be activated...once activated, these alloys are able to work for the sorption of gases such as...nitrogen”), after activation the getter (10) comprising at least 2.5

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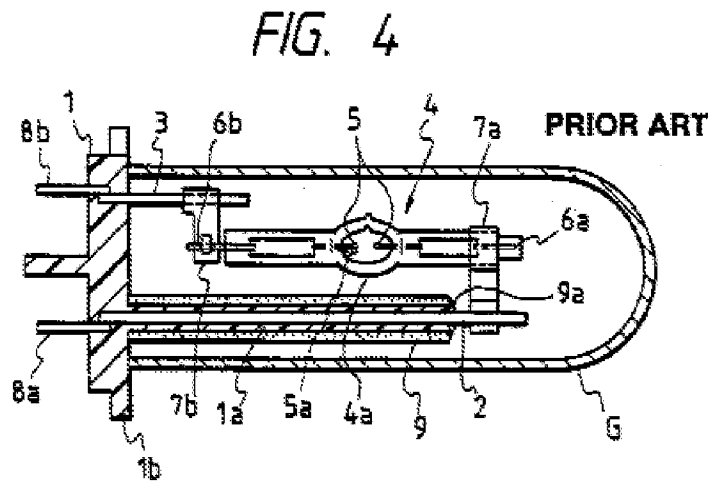
mbar.ml nitrogen (e.g., Fig 9 above, curve 10; Curve 10 depicts $100 \text{ cm}^3 \cdot \text{mbar/g}$ absorbed nitrogen, which for 0.2g as used in Toia, would equate to $20 \text{ cm}^3 \cdot \text{mbar}$ or $20 \text{ mbar} \cdot \text{ml}$, which is well above $2.5 \text{ mbar} \cdot \text{ml}$).

7. Regarding claims 1 and 11, Toia fails to teach the specific components of a discharge lamp.

8. Nagasawa teaches a high-pressure discharge lamp (e.g., col 1, lines 8-9; “a discharge lamp apparatus”) comprising: an outer envelope (1) (e.g., col 1, line 43; “G designates an ultraviolet-ray shielding globe”; see Figure 4 below) in which a discharge vessel (11) is arranged around a longitudinal axis (22) (e.g., col 1, line 19; “an arc tube 4”; see Figure 4 below, arc tube 4 is arranged around a longitudinal axis of outer envelope G), the discharge vessel (11) enclosing, in a gastight manner, a discharge space (13) provided with an ionizable filling (e.g., col 3, lines 19-20; “a starting rare gas, mercury and a metal halide [i.e., an ionizable filling] are sealed in the glass bulb 12”), the discharge vessel (11) having a first (2) and a second (3) mutually opposed neck-shaped portion (e.g., Figure 4, discharge vessel 4 has glass bulb 4a and two mutually opposing neck shaped portions attached to bulb 4a) through which a first (4) and a second (5) current supply conductor (e.g., col 1, lines 23-24; “lead wires 6a and 6b are electrically connected to the respective electrodes 5”), respectively, extend to a pair of electrodes (6, 7) arranged in the discharge space (13) (e.g., col 1, lines 21-22; “the arc tube 4 has a sealed glass bulb 4a in which electrodes 5 are provided in opposition to each other”), a lamp base (8) of electrically insulating material supporting the discharge vessel (11) via the first and second current supply conductors (4, 5) (e.g., col 1, lines 17-21; “a pair of metal lead supports 2 and 3...projecting from an insulating base 1...and an arc tube 4, which is a discharge lamp body,

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supported by the lead supports 2 and 3”), the lamp base (8) also supporting the outer envelope (1) (e.g., Figure 4 below, lamp base 1 supports outer envelope G), the outer envelope (1) enclosing the first and second current supply conductors (4, 5) (e.g., Figure 4 below, outer envelope G encloses first and second current supply conductors 6a and 6b).



9. Regarding claims 1 and 11, it would have been obvious to one of ordinary skill in the art to include the above listed well known components in a discharge lamp as mentioned in the primary reference, Toia, because said components provide the well known benefit of powering a discharge lamp to produce light.

10. Toia and Nagasawa fail to teach the volume of the outer envelope.

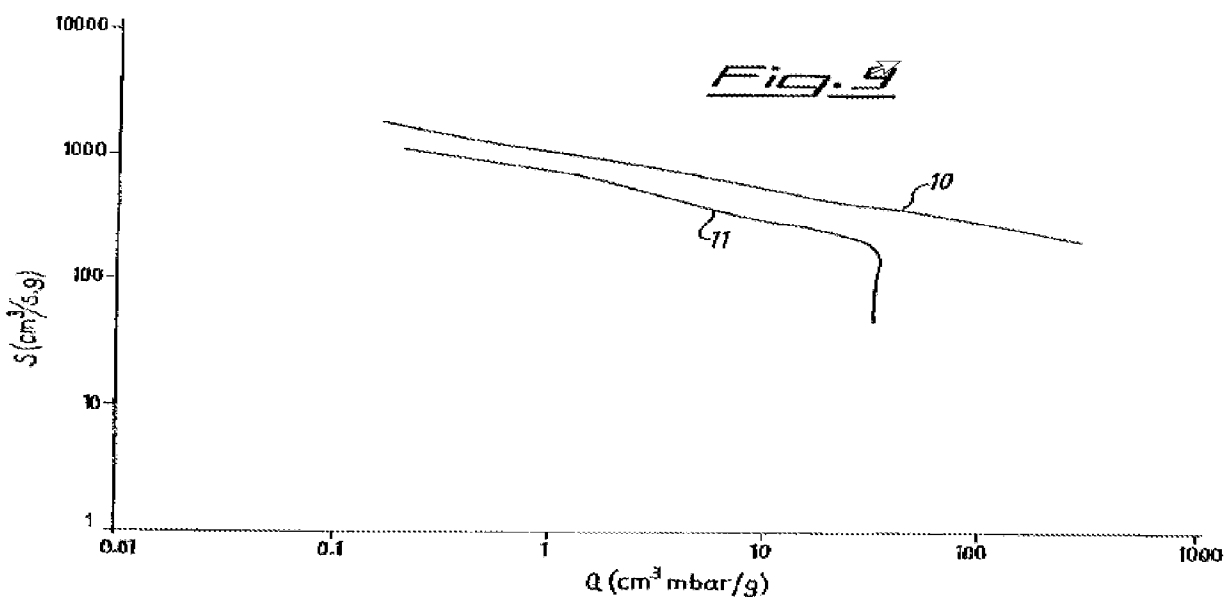
11. Deguchi teaches the outer envelope having a volume of equal or less than 2 cc (e.g., [0067]; “airtight container 1a [i.e., discharge vessel] maximum inside diameter of 2.4 mm, content volume of 0.025 cc...outside pipe OT...the inside diameter of 7 mm”; Note: The volumes of the outer envelope [i.e., outside pipe] and the discharge vessel [i.e., airtight container] are related to their inside diameters by the equation $\Pi r^2 l$ (where r is half the inside diameter and l is the length of the tube), therefore, the volume of the discharge vessel is

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proportional to the square of half its diameter and the volume of the outer envelope is proportional to the square of half its diameter. Since the volume of the discharge vessel is 0.025 ccs, the volume of the outer envelope would necessarily be on the order of 0.2cc's, which is within the range of the claimed 2cc's or less).

12. Regarding claims 1 and 11, it would have been obvious to one of ordinary skill in the art to utilize an outer envelope of 2 cc's or less as taught by Deguchi, because such a small lamp has the well known benefit of use in a variety of applications that require small size, such as vehicle headlights (Deguchi; [0004]).

13. Regarding claim 2, Toia, Nagasawa, and Deguchi teach the invention as explained above regarding claim 1, and Toia further teaches the getter (10) comprises at least 5 mbar.ml nitrogen (e.g., Fig 9 below, curve 10; Curve 10 depicts 100 $\text{cm}^3 \cdot \text{mbar/g}$ absorbed nitrogen, which for 0.2g as used in Toia, would equate to 20 $\text{cm}^3 \cdot \text{mbar}$ or 20 mbar.ml, which is well above 5 mbar.ml).



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14. Regarding claims 3 and 12, Toia, Nagasawa, and Deguchi teach the inventions as explained above regarding claims 1 or 2 and 11 respectively, and Toia further teaches the material of the getter (10) is selected from the group formed by yttrium, tantalum, niobium, titanium, thorium, hafnium, zirconium and vanadium (e.g., col 1, lines 30-32; “generally these alloys have zirconium and/or titanium as main components”).

15. Regarding claim 4, Toia, Nagasawa, and Deguchi teach the invention as explained above regarding claims 1 or 2, and Toia further teaches the getter (10) comprises an alloy of zirconium and aluminum or a zirconium-cobalt mixed metal alloy (e.g., col 1, line 34; “Zr-Al alloys”; col 1, lines 57-58; “Zr-Co-A alloys, wherein A is an element selected among yttrium, lanthanum...”).

16. Regarding claim 13, Toia, Nagasawa, and Deguchi teach the invention as explained above regarding claims 11 or 12, and Toia further teaches the getter (10) is activated by inductive heating (e.g., col 4, lines 8-9 and 25-26; “an induction oven...[is] preferred...the NEG alloys of the invention can be activated at temperatures comprised between 300 and 500 °C”).

17. Regarding claim 14, Toia, Nagasawa, and Deguchi teach the invention as explained above regarding claims 11 or 12, and Toia further teaches the getter (10) is active as getter for hydrogen during life of the discharge lamp (e.g., col 1, lines 24-26; “NEG alloy has the purpose of removing traces of...hydrogen and other gases, thus maintaining the suitable atmosphere for the lamp functioning”).

Conclusion

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARY ELLEN BOWMAN whose telephone number is

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(571)270-5383. The examiner can normally be reached on Monday-Thursday, 6:30 a.m.-5:00 p.m. EST.

19. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly D. Nguyen can be reached on (571) 272-2402. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

20. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M. B./

Examiner, Art Unit 4174

/Kimberly D Nguyen/

Supervisory Patent Examiner, Art Unit 4174